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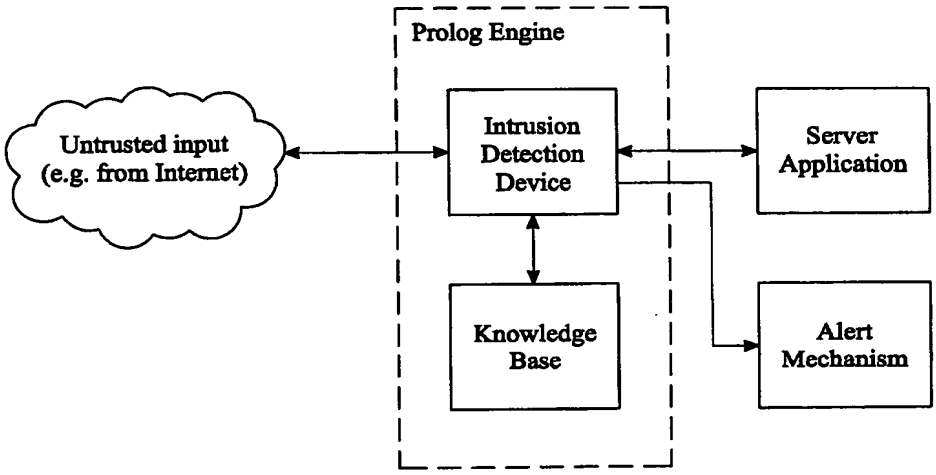
(54) Title: INTRUSION DETECTION SYSTEM



(57) Abstract: An intrusion detection system for detection of intrusion or attempted intrusion by an unauthorised party or entity to a computer system or network, the intrusion detection system comprising means for monitoring the activity relative to the computer system or network, means for receiving and storing one or more general rules, each of the general rules being representative of characteristics associated with a plurality of specific instances of intrusion or attempted intrusion, and matching means for receiving data relating to activity relative to said computer system or network from the monitoring means and for comparing, in a semantic manner, sets of actions forming the activity against the one or more general rules to identify an intrusion or attempted intrusion. Inductive logic techniques are proposed for suggesting new intrusion detection rules for inclusion into the system, based on examples of sinister traffic.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06F1/00 G06F21/00

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DEBAR H ET AL: "A REVISED TAXONOMY FOR INTRUSION-DETECTION SYSTEMS" ANNALES DES TELECOMMUNICATIONS - ANNALS OF TELECOMMUNICATIONS, PRESSES POLYTECHNIQUES ET UNIVERSITAIRES ROMANDES, LAUSANNE, CH, vol. 55, no. 7/8, July 2000 (2000-07), pages 361-378, XP000954771 ISSN: 0003-4347	1,4
Y	page 362, left-hand column, paragraph II.2 page 364, left-hand column, paragraph IV.1.1.	2,3,5-7

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[X] Further documents are listed in the continuation of box C.

[ ] Patent family members are listed in annex.

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Name and mailing address of the ISA	Authorized officer
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
Y	LEE W ET AL: "A FRAMEWORK FOR CONSTRUCTING FEATURES AND MODELS FOR INTRUSION DETECTION SYSTEMS" ACM TRANSACTIONS ON INFORMATION AND SYSTEM SECURITY, ACM, NEW YORK, NY, US, vol. 3, no. 4, November 2000 (2000-11), pages 227-261, XP001078157 ISSN: 1094-9224 abstract page 228, paragraph 1 -page 239, paragraph 4.3 ---	2,3,5-7
X	KO C: "Logic induction of valid behavior specifications for intrusion detection" SECURITY AND PRIVACY, 2000. S&P 2000. PROCEEDINGS. 2000 IEEE SYMPOSIUM ON BERKELEY, CA, USA 14-17 MAY 2000, LOS ALAMITOS, CA, USA,IEEE COMPUT. SOC, US, 14 May 2000 (2000-05-14), pages 142-153, XP010501131 ISBN: 0-7695-0665-8 the whole document ---	1-8
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INTERNATIONAL SEARCH REPORT

PCT/GB 03/01466

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	SINCLAIR; PIERCE; MATZNER: "An application of Machine Learning to Network Intrusion Detection" INTERNET, RETRIEVED ON 09.02.2004, 1999, XP002269870 Proceedings of 15th Annual Computer Security Applications Conference Dec.1999 the whole document	